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# Extension Extra

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COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SOUTH DAKOTA STATE UNIVERSITY / USDA

## Fall 2001 Thistle Spraying

*by Leon Wrage, Extension weed specialist,  
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Opportunities for fall spraying have improved considerably with significant precipitation over a wide area. Prior to that, regrowth was slow and growth diminished. Early frost in some areas did not affect Canada thistle foliage and the outlook for warm, sunny weather (60 to 70F) is excellent for response to fall spraying.

Best spraying opportunities are for: pasture, roadsides, and CRP that were mowed, grazed, or sprayed with 2,4-D in early season. It is also a good opportunity to have access to fencelines. Guidelines for each are suggested.

### ROADSIDES, PASTURE, OR CRP, WITH SET-UP

Regrowth is very good; even before the rain, the deep-rooted thistle was growing back in grass that was very drought stressed.

Treat during warm weather; it's not necessary to have a frost. Tordon or Clarity/Banvel are options for spot treating. Tordon plus 2,4-D gives significant stand reduction. Lower rates of Clarity or Banvel can be used with 2,4-D.

Using 2,4-D 4L at 1.5 qt is an option; however, results in these areas have shown limited stand reduction unless the treatment is part of a repeated, on-going program.

Clpyralid products (Stinger 1 pt, Curtail 3-4 pt, Redeem 3-4 pt) are also effective in the fall; these are recommended most often for spring treatment.

Distinct and Paramount can be used in non-crop only.

**Best choices:** 1-2 qt Tordon /A  
2 qt Clarity or Banvel /A  
1 pt Tordon + 1 qt 2,4-D /A

### CRP, WITHOUT SET-UP

Most of these established plantings have very high residue cover from old grass, sweetclover, or other vegetation. Spraying -- except for spot treating with high water amounts and high pressure -- will usually be disappointing.

Mow or chop now and spray now or next spring. Or chop now to set up improved coverage for spraying next spring when several herbicide options are available.

#### Recommendation for fall:

**Fall mow/chop and June spray.**

**Spring mow/chop and fall spray.**

Extension data and experience with research in CRP the last two years have provided much more appreciation for the difficulty the crop residue presents.

### FENCELINES

Thistle plants are somewhat green but are mature and have less active growth. The top-choice suggestions are Tordon or Clarity/Banvel at full rates. The lack of new growth and extra, unmowed grass reduces coverage and activity; therefore, high rates of herbicide with soil residual properties are the first choice.

**Best choices:** 2 qt Tordon /A  
2 qt Clarity/Banvel /A

### CANADA THISTLE IN EMERGED WINTER WHEAT

Thistle rosettes frequently emerge after wheat emerges if they were not controlled prior to planting. Spraying winter wheat in the fall with 2,4-D is not recommended, because it represents the greatest risk of crop injury of any timing in Extension tests. The best option in winter wheat is to delay spraying until spring and plan to use Curtail, Express, or 2,4-D.

**Recommendation:** Delay spraying until spring.

## CANADA THISTLE PRIOR TO PLANTING WINTER WHEAT

Although winter wheat planting is past, data from 2000 and 2001 Extension demonstration plots in fallow planted to wheat provide good information. The 2000 fall was dry, but Canada thistle regrowth was present when herbicides were applied. Roundup (glyphosate products) at higher rates was most effective; 1 qt/A of Roundup Ultra provided over 90% reduction. Rates of 2,4-D gave 20 to 30% reduction.

The low rates required for other herbicides used before planting were less effective. The rates of Clarity or Tordon that can be used prior to planting in these situations do not provide sufficient herbicide for significant stand reduction. Sulfonyl-urea herbicides such as Ally and Express provided limited control with the fall application. Suppression with spring in-crop applications in combination with 2,4-D gives better results.

**Best choice:** 1-2 qt Roundup /A  
(Glyphosate product 3 lb ae)

### TREE PLANTINGS

Thistle regrowth is usually strong in areas that were tilled or mowed earlier in the season. Roundup (glyphosate products) directed to avoid spray contact on the trees is an effective option. Use higher rates for maximum effectiveness.

**Recommendation:** 3 qt Roundup /A  
(Glyphosate product 3 lb a.e.)

### BIENNIAL THISTLES

Expect emergence of seedlings to continue into late fall. Emergence in most areas was limited until fall precipitation. Results from fall applications of Tordon (with or without 1-2 pt 2,4-D) or Grazon P+D or Clarity or Banvel + 2,4-D have performed consistently in SDSU tests. Using lower rates or using less residual herbicide such as 2,4-D often allows for late-fall or early-spring emergence.

**Best choices:** .5 pt Tordon /A  
2 pt Grazon P+D /A  
1 pt Clarity/Banvel + 1-2 pt 2,4-D /A

## When is it too late to spray?

The Canada thistle plants are the best indication. Data suggests there is little leaf damage at about 27F for short periods of time. Extension observation has noted damage following 25F. Other factors are the field situation, such as tilled versus grass; the weather after application; and herbicide product being used. If in doubt, wait 24-36 hours to see if thistle leaves become dull, wilted, etc.

Spot treatment rates of Tordon or Clarity/Banvel will give control under marginal, late application. Control with 2,4-D, Roundup, or Curtail reduced significantly after freezing temperature in an SDSU test. Biennial rosettes are near the soil and appear to remain active later in the fall.

**Table 1. Canada thistle control in CRP.**

Treatment	Rate	First Year % Control	
		Test 1	Test 2
2,4-D amine	1 qt	26	27
2,4-D amine	3 qt	33	32
2,4-D ester	3 qt	27	22
Hi-Dep	3 qt	37	27
Banvel	1 qt	67	32
Banvel+2,4-D	1 pt+1 qt	43	40
Tordon	1 pt	87	77
Tordon	1 qt	98	94
Tordon	2 qt	99	99
Tordon+2,4-D	1 pt+1 qt	86	83
Curtail	4 pt	58	55
Stinger	.67 pt	77	68
Plateau + MSO	8 oz	21	38
Distinct + NIS	6 oz	62	32
LSD	(.05)	16	13

Test 1: Applied 9/26/98

Beadle County

Test 2: Applied 9/24/99

*Refer to label and Fact Sheet 525-N Noxious Weed Control  
for additional information on site and grazing or haying restrictions.*



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